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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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FITZPATRICK CELLA HARPER & SCINTO			BOTTS, MICHAEL K	
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NEW YORK, NY 10112			PAPER NUMBER	
			2176	

DATE MAILED: 10/06/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/697,983	Applicant(s) TANIOKA, HIROSHI	
	Examiner Michael K. Botts	Art Unit 2176	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 05 July 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-4, 7-9, 26 and 27 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-4, 7-9, 26 and 27 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date <u>July 5, 2006</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. This document is a Final Office Action on the merits. This action is responsive to the following communications: Response to Office Action, which was filed on July 5, 2006.
2. Claims 1-4, 7-9, 26, and 27 are currently pending in the case, with claims 1, 8, and 9 being the independent claims.
3. Claims 1-4, 7-9, 26, and 27 are rejected.

Information Disclosure Statement

4. A signed and dated copy of applicant's IDS, which was filed on July 5, 2006, is attached to this Office Action.

Claims Rejection – 35 U.S.C. 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. **Claims 1, 2, 8, 9, and 27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Matsubayashi, et al. (Japanese Laid-Open Patent Publication (Kokai) No. A8-30717, published February 2, 1996) [hereinafter "Matsubayashi"],**

in view of Shibuya, et al. (U.S. Patent 5,579,416, issued November 26, 1996) hereinafter "Shibuya"] and further in view of Gray, et al. (U.S. Patent 3,295,105, published December 27, 1966) [hereinafter "Gray"].

Regarding **independent claim 1, as amended**, Matsubayashi in view of Shibuya and further in view of Gray teaches:

An image processing apparatus comprising:

a reading unit constructed to read an image in an original;

(See, Matsubayashi, paragraphs [0008]-[0009], teaching an image reading unit.)

a character recognizing unit constructed to recognize a character in the image read by said reading unit;

(See, Matsubayashi, paragraphs [0008]-[0010], teaching a character recognition unit.)

a storing unit constructed to store a character font;

(See, Matsubayashi, Figure 1, element 4, and paragraph 13, teaching an image storage unit.)

a readout unit constructed to read the character font from said storing unit in response to a result of recognition obtained by said character recognizing unit;

(See, Matsubayashi, paragraphs [0014], teaching a readout means.)

a first detecting unit constructed to detect first character size concerning the character in the image read by said reading unit;

(See, Matsubayashi, paragraphs [0014], teaching detecting character information.

Shibuya teaches determining a character size by use of character points. See,

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Shibuya, figure 2B, and col. 4, lines 61-66. See also, Shibuya, col. 7, lines 13-21, teaching detecting the character.)

a setting unit constructed to set a magnification information based on an instruction by an operator;

(See, Shibuya, col. 7, lines 31-49, and col. 7, line 61 through col. 8, line 39, teaching the magnification unit.)

a second determining unit constructed to determine second character size based on the first character size and the magnification information; and

(Shibuya teaches determining a second character size based on the magnification information set in response to an operator's instruction as the operator moving a cursor in each direction to set the magnification of the character. See, Shibuya, col. 7, lines 31-49. See also, Shibuya, col. 8, lines 41-63, teaching that the character size of other characters may be set as a group or a character train. See also, Shibuya, Col. 6, lines 21-25, teaching that the magnification parameters may be added to every type of font.)

a generating unit constructed to generate a reproduced image, which includes characters having the second character size, based on the character font read by said readout unit,

(See, Matsubayashi, paragraphs [0014], teaching generating a reproduced image based on the character font read by the readout means and the information concerning the character detected by the detecting means.

Shibuya teaches reproducing the image including the characters of the second character size, based on the font read out according to the result of recognition of the

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character recognizing means or step. This limitation is read as reproducing the magnified character, since the second character size based on the font according to the result of recognition of the character has already been specified in the claim.

Accordingly, the reproduction specification is taught that it is both displayed in the magnified version and may be printed out. See, Shibuya, col. 5, lines 38-41.)

wherein said generating unit reproduces characters by combining a plurality of kinds of character gaps in accordance with the magnification information and the second character size.

(Matsubayashi and Shibuya teaches the limitations discussed above, but do not expressly teach a generating means to reproduce a character with a character gap according to a set condition by an instruction from an operator, with the characters reproduced by combining a plurality of kinds of character gaps in accordance with the set position.

Gray, teaches in detail the recording of gaps or spaces between scanned characters. See, Gray, col. 6, line 19 through col. 8, line 24, teaching scanning characters to determine space relationships. Gray does not expressly teach generating a reproduction of the characters and gaps from the scan. The Examiner takes official notice of the fact that it would have been obvious to one of ordinary skill in the art at the time of the invention that one of the principal uses for scanning a text document is to enable later reproduction such as to be copied into another document, edited, or printed through an attached printing device.

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It would have been obvious to one of ordinary skill in the art at the time of the invention to combine the teachings of Matsubayashi, Shibuya, and Gray to result in the invention claimed.

Matsubayashi, Shibuya, and Gray involve the same art, electronic character manipulation. Matsubayashi teaches the recognition of the character in terms of a Japanese characters to which spacing is less functional. Shibuya teaches magnification manipulation of Japanese characters, and Gray teaches the recognition of the character in a different manner than Matsubayashi, and additionally teaches the recognition of the spaces in alpha-numeric characters. The character recognition function of Gray operates separately from the space recognition teachings. It would have been obvious to one of ordinary skill in the art at the time of the invention who desired to use the character recognition method of Matsubayashi, and the magnification of Shibuya, with an alpha-numeric character set to add the Gray space recognition teachings to the Matsubayashi recognition method and the Shibuya magnification method for purposes of using Matsubayashi and Shibuya with an alpha-numeric text.)

Regarding **dependent claim 2**, Matsubayashi in view of Shibuya and further in view of Gray teaches:

An image processing apparatus according to claim 1, wherein a character font used for a reproduced image is determined to have a character style which is closest to the character in the original.

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(See, Matsubayashi, paragraphs [0013]-[0014] and [0031]-[0033], teaching that the character font used for a reproduced image is determined to have a character style which is closest to the character in the original.)

Regarding **dependent claim 3**, Matsubayashi in view of Shibuya and further in view of Gray teaches:

An image processing apparatus according to claim 1, wherein a character used for a reproduced image has at least two different sizes with respect to the same character size on the original.

(Matsubayashi and Gray each the invention of claim 1, above, but do not expressly teach that a character used for a reproduced image as at least two different sizes with respect to the same character size on the original.

Shibuya teaches at least two different sizes with respect to the same character size to an original character size. See, Shibuya, Figures 9H-9M, teaching changing sizes by magnification in both the “x” and “y” directions. See also, Shibuya, col. 3, lines 25-26, teaching an arbitrary character size.

It would have been obvious to one of ordinary skill in the art at the time of the invention to have combined the teachings of Matsubayashi, Gray, and Shibuya for the purpose of increasing the flexibility and enhancing the appearance of a reproduction by having at least two different sizes for a character.)

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Regarding **independent claim 8, as amended**, Matsubayashi in view of Shibuya and further in view of Gray teaches:

An image processing method comprising the steps of:

reading an image in an original;

detecting first character size information concerning a character in the image;

recognizing a character in the image;

reading a character font from a storing unit in response to a result of character recognition;

setting a magnification information based on an instruction by an operator;

determining second character size based on the first character size and the magnification information; and

generating a reproduced image, which includes characters having the second character size, based on the read character font,

wherein said generating means reproduces characters by combining a plurality of kinds of character gaps in accordance with the magnification information and the second character size.

(Claim 8 incorporates substantially similar subject matter as claimed in claim 1 and is rejected along the same rationale.)

Regarding **independent claim 9, as amended**, Matsubayashi in view of Shibuya and further in view of Gray teaches:

A recording medium readable by a computer characterized by storing a program therein, said program using the computer to execute the processing comprising the steps of:

reading an image in an original;

detecting first character size information concerning a character in an image;

recognizing a character in the image;

reading a character font from a storing means in response to a result of character recognition;

setting magnification information based on an instruction by an operator; and

generating a reproduced image, which includes characters having the second character size, based on the read character font,

wherein said generating means reproduces characters by combining a plurality of kinds of character gaps in accordance with the magnification information and the second character size.

(Claim 9 incorporates substantially similar subject matter as claimed in claim 1 and is rejected along the same rationale.)

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Regarding **dependent claim 26**, Matsubayashi in view of Gray and further in view of Shibuya teaches:

A method according to Claim 8, wherein said method enables to output the reproduced image in an image processing apparatus which can form on a sheet an image based on data input from at least any of a plurality of data generation sources including an original reading unit and an external apparatus.

(Matsubayashi and Gray teach the invention of claim 8, above, but they do not expressly teach forming on a sheet an image based on data from any of a plurality of data generation sources including an original reading unit and an external apparatus.

Shibuya teaches printing the image. See, Shibuya, Figure 1A, element 11.

Printing of data, and the scanning of images in order to later print the data, in whole or in part, was well known to one of ordinary skill in the art at the time of the invention. It would have been obvious to one of ordinary skill in the art at the time of the invention to combine the teachings of Matsubayashi and Gray with the teaching of Shibuya to print the stored data for purposes of preparing a composite image or for duplicating the original document.)

Regarding **dependent claim 27**, Matsubayashi in view of Shibuya and further in view of Gray teaches:

A method according to Claim 8, wherein said method enables to output the reproduced image in an image processing apparatus which can transmit data

to an external apparatus through at least any of a plurality of data transmission media including a personal computer interface and a network.

(See, Shibuya, col. 4, lines 29-31, teaching output to a printer. See also, Shibuya, col. 8, line 64 through col. 9, line 2, teaching that the invention may be operated over a network.)

6. Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Matsubayashi in view of Shibuya and further in view of Gray as applied to claim 1 above, and further in view of Hashizume, et al. (U.S. Patent 5,513,278, issued April 30, 1996) [hereinafter "Hashizume"].

Regarding **dependent claim 4**, Matsubayashi in view of Shibuya in view of Gray and further in view of Hashizume teaches:

An image processing apparatus according to claim 1, wherein a character size used for a reproduced image is determined as a maximum size by which all characters in the original can be reproduced as reproduced images.

(Matsubayashi and Gray each teach the invention of claim 1, above, but do not expressly teach that a character size used for a reproduced image is determined as a maximum size by which all characters in the original can be reproduced as reproduced images.

Hashizume teaches as prior art that it is conventional to apply a single size to every character reproduced. See, Hashizume, col. 2, lines 9-12. The single size applied would be the maximum size in that it is the only size applied.

It would have been obvious to one of ordinary skill in the art at the time of the invention to have combined the teachings of Matsubayashi, Gray, and Hashizume for the purpose of establishing a maximum size for a reproduced image due to the fact that Hashizume teachings are well known conventional and because such combination would provide the obvious advantage of an image with characters of a consistent size.)

7. Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Matsubayashi in view of Shibuya and further in view of Gray and further in view of Saito, et al. (U.S. Patent 4,962,465, issued October 9, 1990) [hereinafter "Saito"].

Regarding **dependent claim 7**, Matsubayashi in view of Gray in view of Shibuya and further in view of Saito, teaches:

An image processing apparatus according to claim 6, wherein said generating means reproduces characters by combining a plurality of kinds of character gaps when a number of pixels of a character gap calculated in accordance with the set copy magnification is not an integer.

(Matsubayashi Gray, and Shibuya teach the invention of claim 1, above, but they do not expressly teach that the number of pixels of a character gap is not an integer.

Saito, Figures 13, 14, and 16, teach a magnified character pattern in which the character and the gap around the character is not necessarily an integer value, the character being set in a 72x72 dot field and the character being set at a fraction of the dot spacing. See also, Saito, col. 2, lines 57-62, teaching shifting a magnified image $\frac{1}{2}$

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of the numbers of dots added both longitudinally and transversely, which would inherently include a shift of a fraction of dots (not an integer) if the longitudinally or transversely shift was an odd number. It would have been obvious to one of ordinary skill in the art at the time of the invention that the teaching to shift the character to a non-integer number of pixels would include the ability to adjust the gap between a character to a non-integer number.

It would have been obvious to one of ordinary skill in the art at the time of the invention to have combined the teachings of Matsubayashi, Gray, Shibuya, and Saito for the purpose of increasing the flexibility and enhancing the appearance of a reproduction by having a magnification function that would permit a finer control of the character and gap size by fractional shifting of the size of the character resulting in fractional sizing of the gaps between the characters.)

8. It is noted that any citations to specific, pages, columns, lines, or figures in the prior art references and any interpretation of the references should not be considered to be limiting in any way. A reference is relevant for all it contains and may be relied upon for all that it would have reasonably suggested to one having ordinary skill in the art.

See, MPEP 2123.

Response to Arguments

Applicants' arguments filed July 5, 2006 have been fully considered, but they are not persuasive.

Regarding rejections of claims 1, 8, and 9:

First: Applicants argue that the references fail to teach or suggest “at least the features of detecting the size (first character size) of the character in the image read by the reading means unit or step; determining the second character size based on the magnification information set in response to an operator’s instruction; and reproducing the image including the characters of the second character size, based on the font read out according to the result of recognition of the character recognizing means or step.”

See, Applicant’s Remarks, pages 8-9.

The Examiner disagrees.

Shibuya teaches determining a character size by use of character points. See, Shibuya, figure 2B, and col. 4, lines 61-66.

Shibuya teaches determining a second character size based on the magnification information set in response to an operator’s instruction as the operator moving a cursor in each direction to set the magnification of the character. Se, Shibuya, col. 7, lines 31-49.

Shibuya teaches reproducing the image including the characters of the second character size, based on the font read out according to the result of recognition of the character recognizing means or step. This limitation is read as reproducing the magnified character, since the second character size based on the font according to the result of recognition of the character has already been specified in the claim.

Accordingly, the reproduction specification is taught that it is both displayed in the

magnified version and may be printed out. See, Shibuya, col. 5, lines 38-41.

Second: Applicants argue that Gray fails to teach or suggest “reproducing characters by combining a plurality of kinds of character gaps according to the magnification information and the second character size. See, Applicant’s Remarks, page 9.

The Examiner disagrees.

Gray teaches locating the character gaps. See, Shibuya, figure 1A, teaching output to an image memory and to a printer. The combination of the references teaches reproducing the characters by combining the character gaps according to the magnification information and character size.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** for the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any

extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael K. Botts whose telephone number is 571-272-5533. The examiner can normally be reached on Monday through Friday 8:00-4:00 EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Heather Herndon can be reached on 571-272-4136. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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